REMARKS

The indication of allowable subject matter in claims 6-10, 12 and 14 is acknowledged and appreciated. In view of the following remarks, it is respectfully submitted that all claims are in condition for allowance.

Claims 11 and 13 stand rejected under 35 U.S.C. § 102 as being anticipated by Asai et al. (EP '284). This rejection is respectfully traversed for the following reasons.

Claim 11 recites in pertinent part, "doping at least an upper portion of the third single-crystal semiconductor layer with a p-type impurity ... performing heat treatment for diffusing phosphorus in the semiconductor layer so that the upper portion of the third single-crystal semiconductor layer is doped with phosphorus in a concentration higher than the concentration of the p-type impurity introduced in the step (c), to change the upper portion of the third single-crystal semiconductor layer into ***an emitter***."

The Examiner alleges that col. 18, lines 15-30 of Asai et al. discloses this feature of the present invention. However, as expressly disclosed at col. 18, lines 25-27, the p-type impurities are doped using Re1 as a mask. As shown in Figure 3a, Re1 covers the emitter region so that it is NOT doped with the p-type impurity (i.e., boron). Instead, only portions of the external base are doped. Indeed, Asai et al. fails to disclose or suggest that the region which is to become an n-type emitter is first doped with the p-type impurities such as boron before being doped with the n-type impurities.

As anticipation under 35 U.S.C. § 102 requires that each and every element of the claim be disclosed, either expressly or inherently (noting that "inherency may not be established by probabilities or possibilities", *Scaltech Inc. v. Retec/Tetra*, 178 F.3d 1378

(Fed. Cir. 1999)), in a single prior art reference, *Akzo N.V. v. U.S. Int'l Trade Commission*, 808 F.2d 1471 (Fed. Cir. 1986), based on the forgoing, it is submitted that Asai et al. does not anticipate claim 11, nor any claim dependent thereon.

Under Federal Circuit guidelines, a dependent claim is nonobvious if the independent claim upon which it depends is allowable because all the limitations of the independent claim are contained in the dependent claims, *Hartness International Inc. v. Simplimatic Engineering Co.*, 819F.2d at 1100, 1108 (Fed. Cir. 1987). Accordingly, as claim 11 is patentable for the reasons set forth above, it is respectfully submitted that all claims dependent thereon are also patentable. In addition, it is respectfully submitted that the dependent claims are patentable based on their own merits by adding novel and non-obvious features to the combination.

Based on all the foregoing, it is respectfully submitted that all pending claims are patentable over the cited prior art. Accordingly, it is respectfully requested that the rejection under 35 U.S.C. § 102 be withdrawn.

CONCLUSION

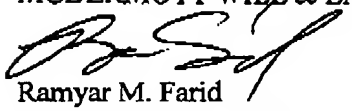
Having fully responded to all matters raised in the Office Action, Applicants submit that all claims are in condition for allowance, an indication for which is respectfully solicited. If there are any outstanding issues that might be resolved by an interview or an Examiner's amendment, the Examiner is requested to call Applicants' attorney at the telephone number shown below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this

paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

MCDERMOTT WILL & EMERY LLP



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